

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (previously presented) A method of diagnosing Crohn's disease in a
2 subject, comprising determining the presence or absence of IgA anti-outer membrane protein C
3 (anti-OmpC) antibodies in said subject, where the presence of said IgA anti-OmpC antibodies
4 indicates that said subject has Crohn's disease.

1 2. (previously presented) A method of diagnosing Crohn's disease in a
2 subject, comprising the steps of:
3 (a) obtaining a sample from a subject suspected of having inflammatory
4 bowel disease;
5 (b) contacting the sample with an OmpC antigen, or reactive fragment thereof,
6 under conditions suitable to form a complex of the OmpC antigen, or reactive fragment thereof,
7 and IgA anti-OmpC antibody;
8 (c) contacting said complex with a labeled anti-IgA antibody to form a
9 labeled complex; and
10 (d) detecting the presence or absence of said labeled complex, thereby
11 determining the presence or absence of IgA anti-OmpC antibodies,
12 where the presence of said IgA anti-OmpC antibodies in said subject indicates
13 that said subject has Crohn's disease.

1 3. (previously presented) A method of diagnosing Crohn's disease in a
2 subject, comprising the steps of:

3 (a) contacting a sample from a subject suspected of having inflammatory
4 bowel disease with an OmpC antigen, or reactive fragment thereof, under conditions suitable to
5 form a complex of the OmpC antigen, or reactive fragment thereof, and IgA anti-OmpC
6 antibody, wherein said OmpC antigen comprises the amino acid sequence of SEQ ID NO:1;

7 (b) contacting said complex with a labeled anti-IgA antibody to form a
8 labeled complex; and

9 (c) detecting the presence or absence of said labeled complex, thereby
10 determining the presence or absence of IgA anti-OmpC antibodies,

11 where the presence of said IgA anti-OmpC antibodies in said subject indicates
12 that said subject has Crohn's disease.

1 4. (original) The method of claim 2, wherein IgA anti-OmpC antibodies are
2 detected with an enzyme-linked immunosorbent assay.

1 5. (original) The method of claim 2, further comprising determining the
2 presence or absence of IgA anti-Saccharomyces cerevisiae antibodies (ASCA) in said subject,
3 wherein the presence of IgA anti-OmpC antibodies or the presence of IgA ASCA
4 in said subject each independently indicates that said subject has Crohn's disease.

1 6. (original) The method of claim 5, wherein the presence of IgA ASCA is
2 determined by reactivity with purified yeast cell wall phosphopeptidomanan (PPM).

1 7. (original) The method of claim 6, wherein said yeast cell wall PPM is
2 prepared from ATCC strain #38926.

1 8-13. (canceled)

1 14. (previously presented) A method of increasing the sensitivity of
2 diagnosing Crohn's disease in a subject, comprising determining the presence or absence of IgA

3 anti-OmpC antibodies in said subject, where the presence of said IgA anti-OmpC antibodies
4 indicates that said subject has Crohn's disease.

1 15. (currently amended) The method of claim 14, wherein the presence or
2 absence of IgA anti-OmpC antibodies is detected in combination with detecting the presence or
3 absence of IgA antibodies against one or more additional microbial antigens ~~other than OmpC~~
4 ~~associated with Crohn's disease~~.

1 16. (currently amended) The method of claim 15, wherein said one or more
2 additional microbial antigens ~~other than OmpC associated with Crohn's disease~~ comprises
3 IgA ASCA.

1 17. (previously presented) A method of diagnosing Crohn's disease in a
2 subject, comprising determining the presence or absence of IgA anti-OmpC antibodies and the
3 presence or absence of IgA ASCA in said subject, where the presence of said IgA anti-OmpC
4 antibodies and the presence of said IgA ASCA each independently indicate that said subject has
5 Crohn's disease.

1 18. (currently amended) A method of diagnosing Crohn's disease in a subject,
2 comprising the steps of:

3 (a) obtaining a sample from a subject suspected of having inflammatory
4 bowel disease;

5 (b) contacting a dilution of the sample with an OmpC antigen, or reactive
6 fragment thereof, ~~and an one or more antigens specific for IgA ASCA~~ under conditions
7 suitable to form ~~complexes~~ a complex of the OmpC antigen, or reactive fragment thereof, and
8 IgA anti-OmpC antibody ~~and the one or more antigens specific for ASCA and IgA ASCA~~;

9 (c) contacting said ~~complexes~~ complex from step (b) with a labeled anti-IgA
10 antibody to form a labeled ~~complexes~~ complex; ~~[[and]]~~

11 (d) detecting the presence or absence of said labeled ~~complexes~~ complex from
12 step (c), thereby determining the presence or absence of IgA anti-OmpC antibodies ~~and the~~
13 ~~presence or absence of ASCA~~,

14 (e) contacting another dilution of the sample with one or more antigens
15 specific for IgA ASCA under conditions suitable to form a complex of the one or more antigens
16 specific for ASCA and IgA ASCA;

17 (f) contacting said complex from step (e) with a labeled anti-IgA antibody to
18 form a labeled complex; and

19 (g) detecting the presence or absence of said labeled complex from step (f).
20 thereby determining the presence or absence of ASCA.

21 where the presence of said IgA anti-OmpC antibodies and the presence of ASCA
22 in said subject each independently indicate that said subject has Crohn's disease.

1 19. (currently amended) The method of any one of claims 14, 17 or 18,
2 wherein IgA anti-OmpC antibodies and ASCA are detected with ~~[[an]]~~ independent enzyme-
3 linked immunosorbent ~~assay~~ assays.

1 20. (previously presented) The method of any one of claims 14, 17 or 18,
2 wherein said OmpC antigen comprises the amino acid sequence of SEQ ID NO:1.

1 21. (previously presented) The method of any one of claims 14, 17 or 18,
2 wherein the presence of IgA ASCA is determined by reactivity with purified yeast cell wall
3 phosphopeptidomannan (PPM).

1 22. (withdrawn) A method of diagnosing Crohn's disease in a subject,
2 comprising determining the presence or absence of IgA anti-OmpC antibodies, IgA ASCA, IgA
3 anti I-2 polypeptide antibodies and peri-nuclear anti-neutrophil antibodies (pANCA) in said
4 subject, where the presence of said IgA anti-OmpC antibodies, IgA ASCA, IgA anti I-2
5 polypeptide antibodies and peri-nuclear anti-neutrophil antibodies (pANCA) in said subject
6 indicates that said subject has Crohn's disease.